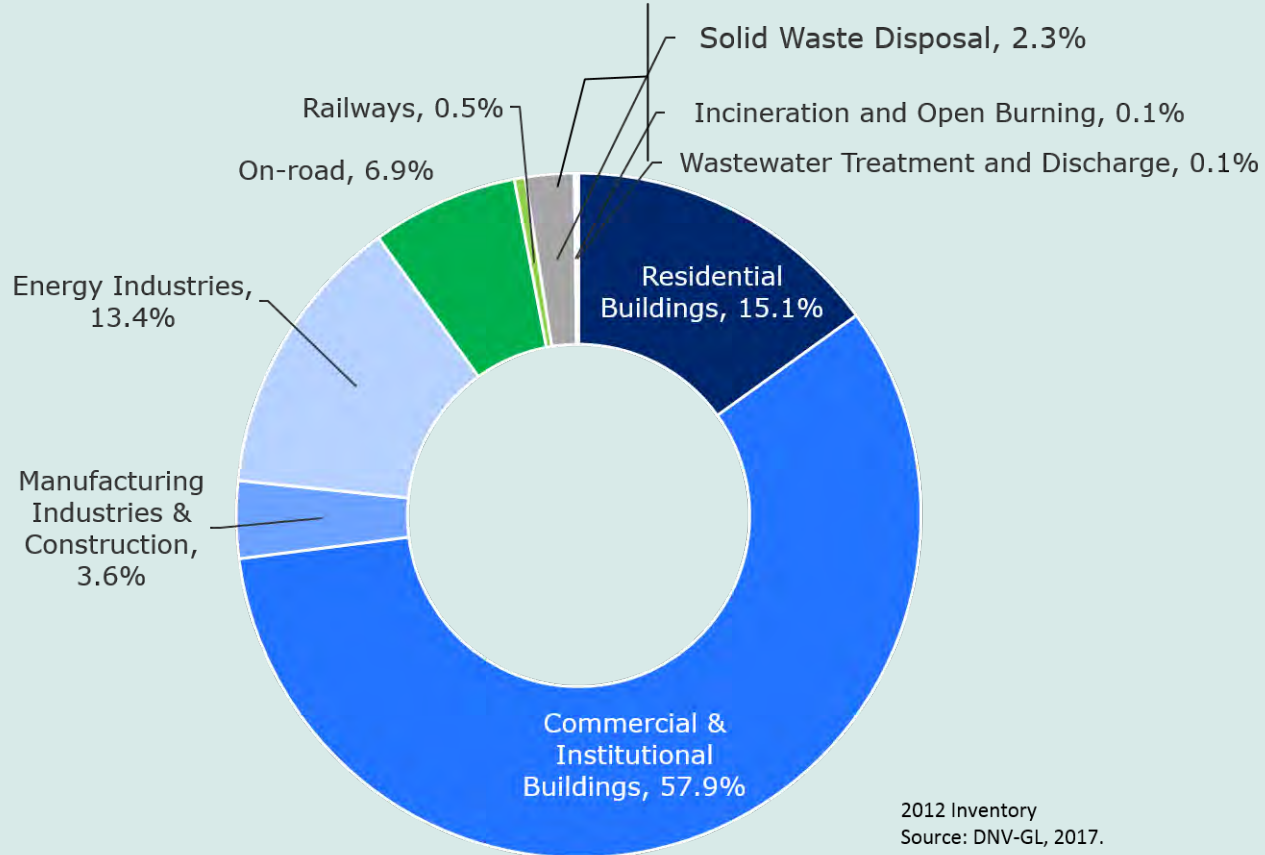
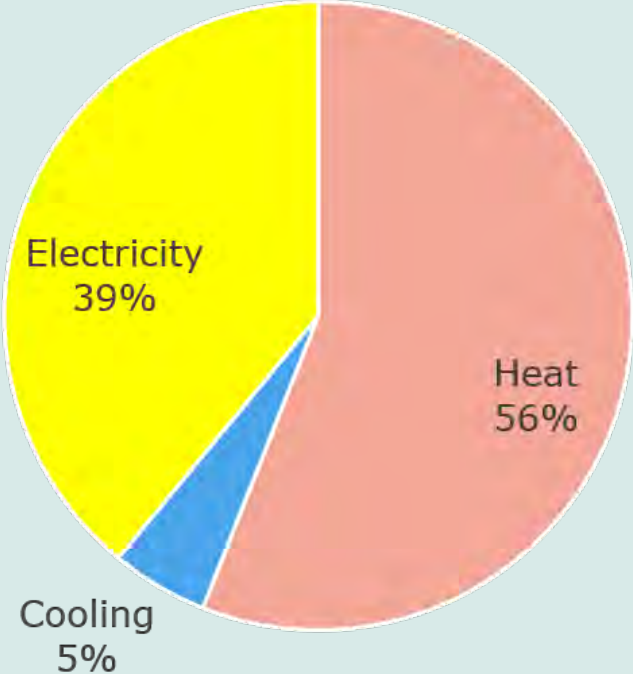


Cambridge Community GHG Inventory

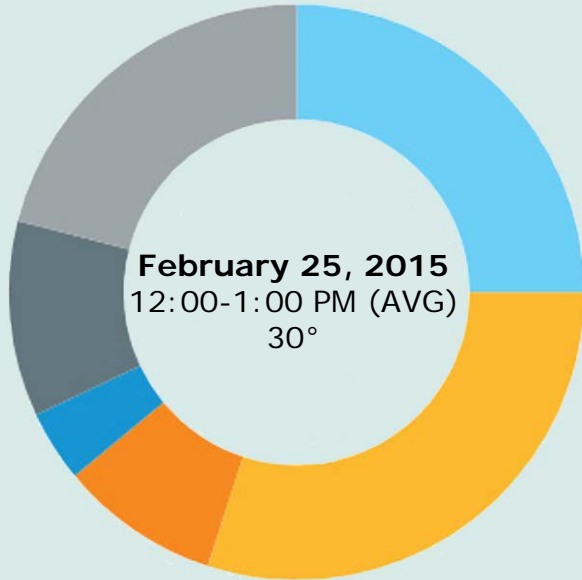


ENERGY DEMAND SPLIT IN CAMBRIDGE BY USE TYPE

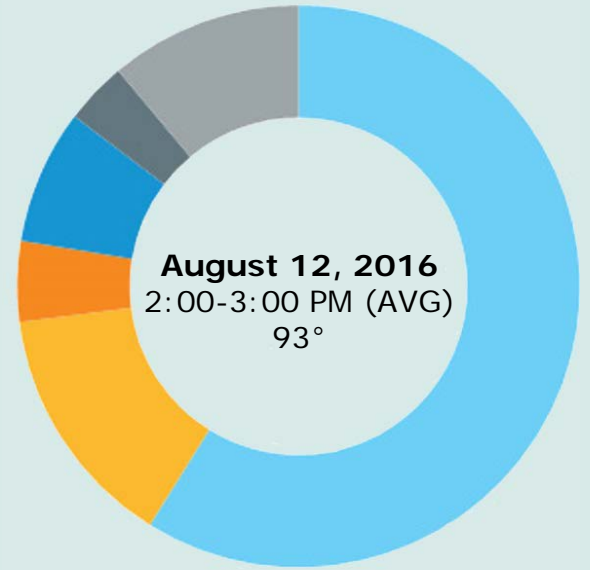
Energy Demand (MMBTU)



Current Role of Natural Gas as Fuel Source

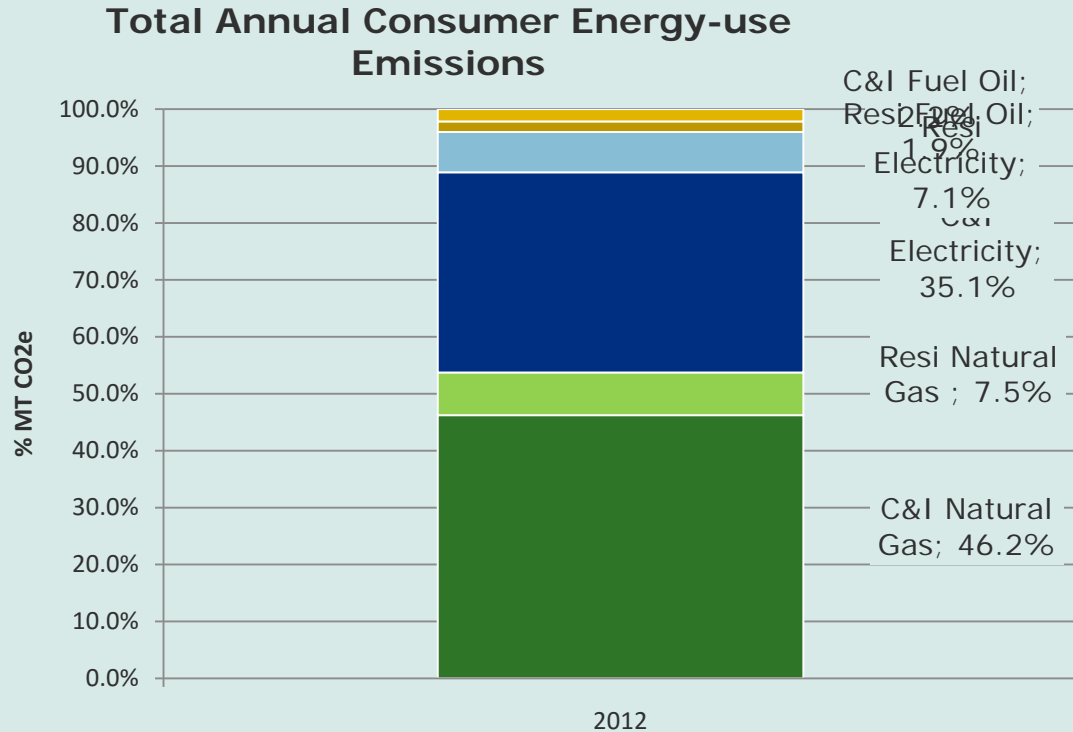


25%	Natural Gas	59%
30%	Nuclear	14%
9%	Renewables	5%
4%	Hydro	8%
11%	Coal	4%
21%	Oil	11%



Source: ISO New England

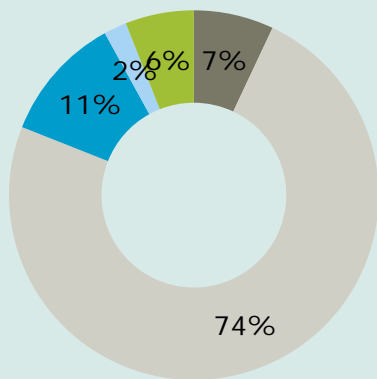
Emissions by Consumer Category



Source: DNV-GL, 2017.

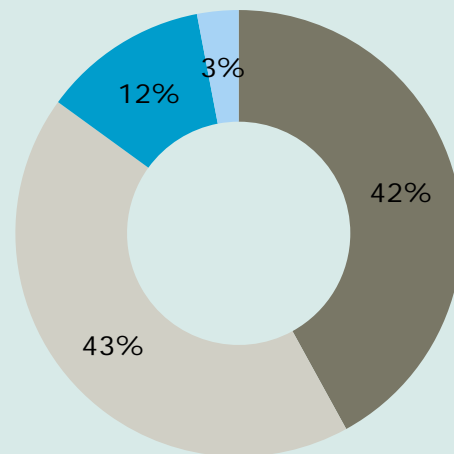
COPENHAGEN TO BE CARBON NEUTRAL BY 2025

SHARE OF TOTAL CARBON REDUCTION (1.2 MILLION TONS CO2)



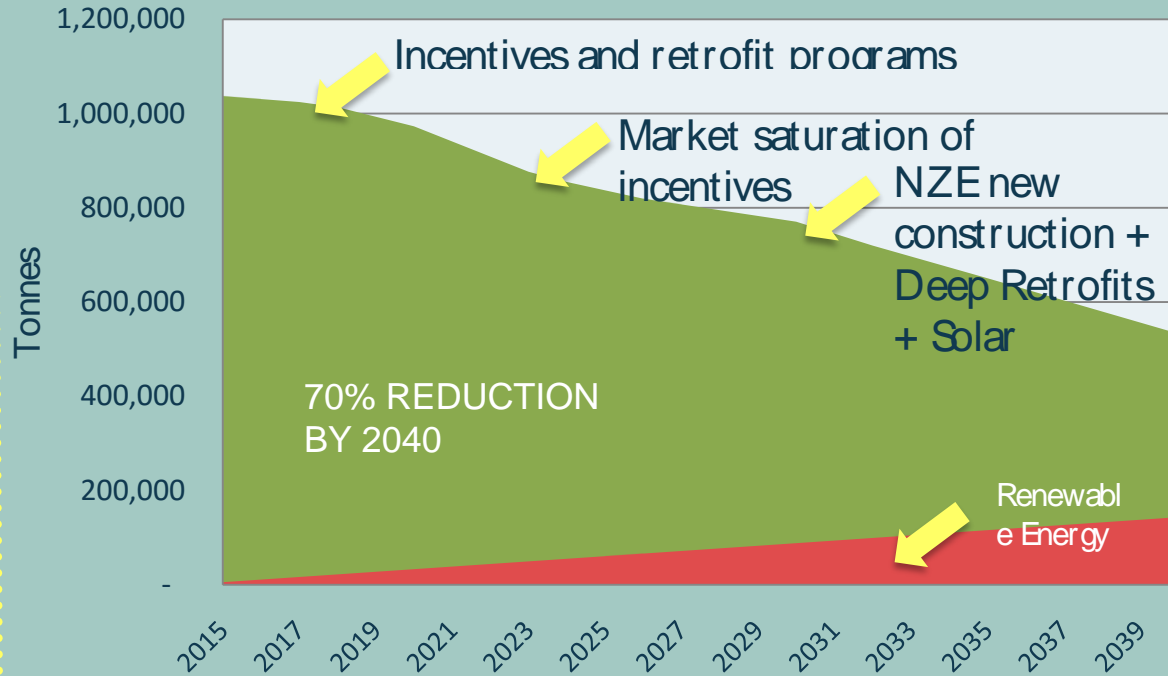
- Energy consumption
- Energy production
- Green mobility
- City administration initiatives

CO2 REDUCTION FROM ENERGY PRODUCTION (855,000 TONS CO2)

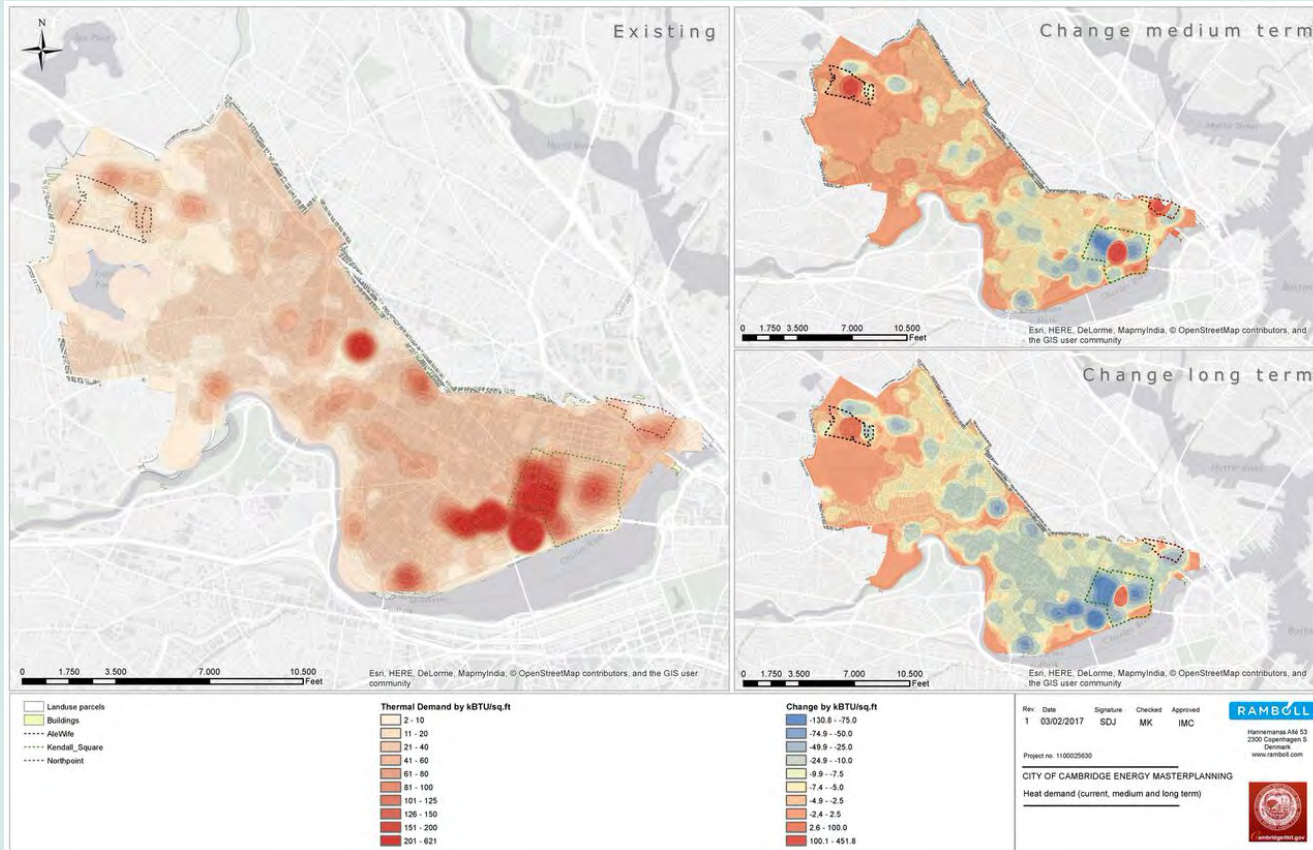


- Wind turbines
- New biomass-fired combined heat and power plant
- Separation of plastic from incinerable waste

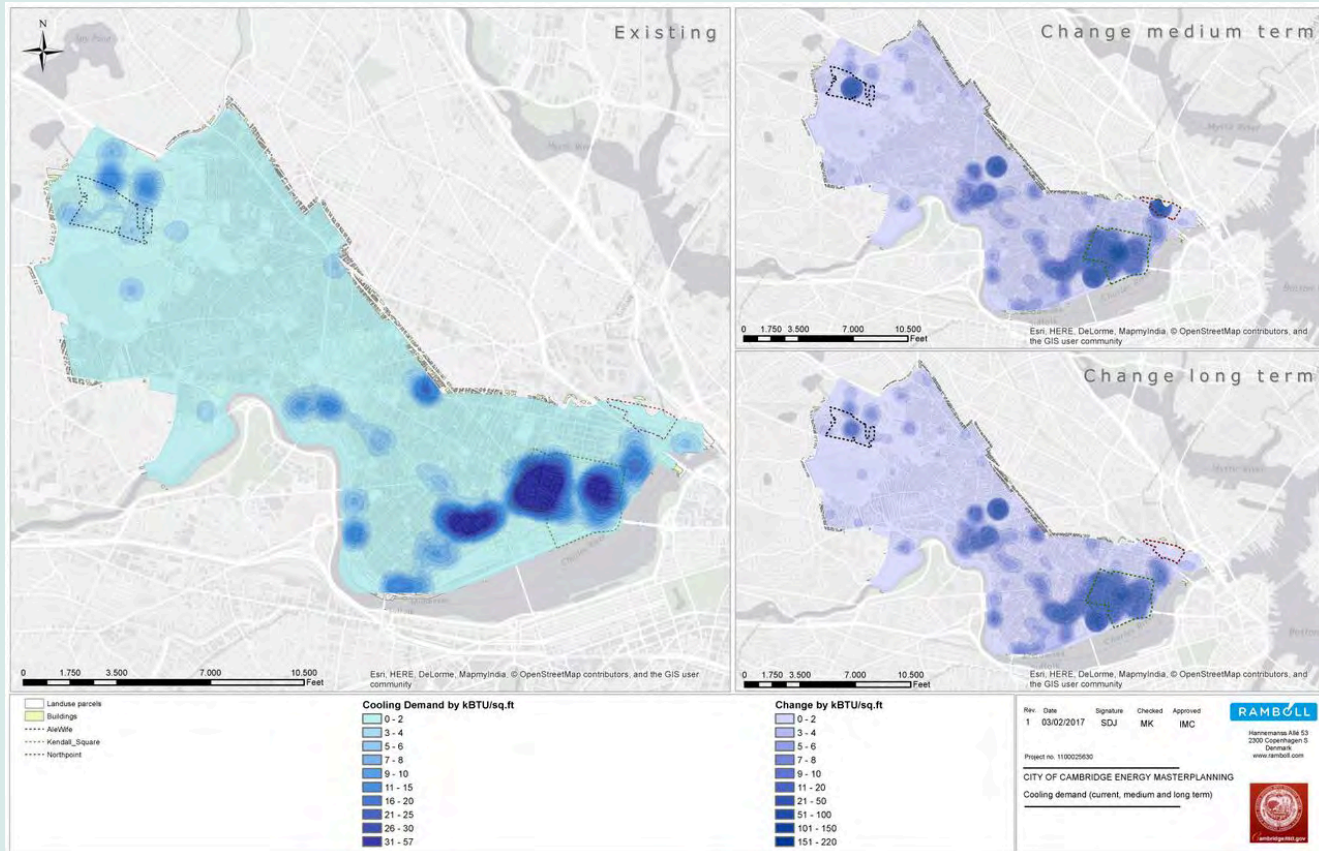
CAMBRIDGE EMISSIONS REDUCTION MODEL



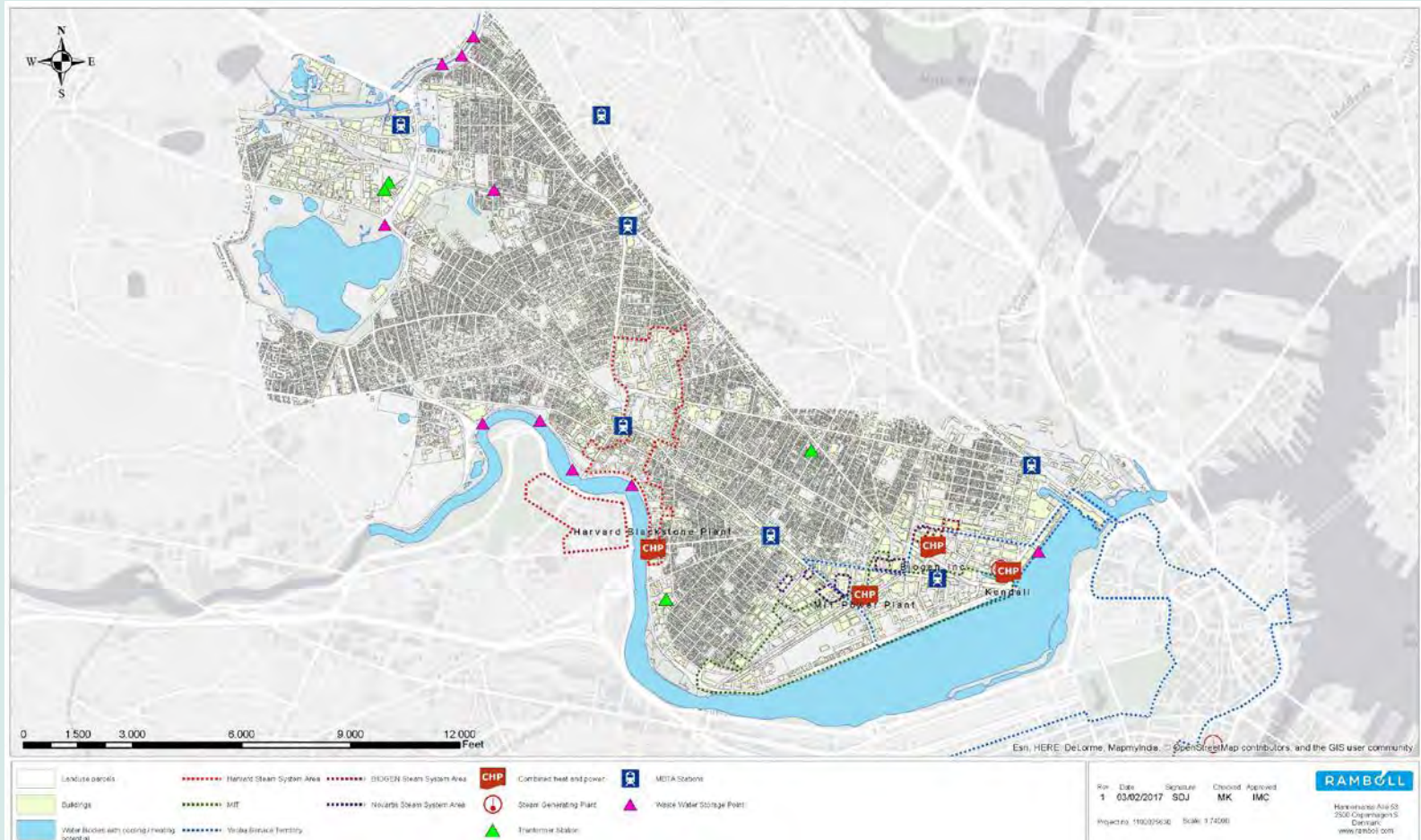
Heat Demand: Current and Future



Cooling Demand: Current and Future



Cambridge Energy Supply Asset Map



	Landuse parcels		Harvard Steam System Area		MIT Steam System Area		Combined heat and power		Steam Generating Plant		Water Storage Point
	Buildings		Nevard Steam System Area		Transformer Station		MDTA Stations		Water Bodies with cooling/heating potential		
			Stroke Service Territory								

Rev	Date	Prepared	Checked	Approved
1	03/02/2017	SOJ	MK	IMC
Project: 110075636		Scale: 1:74000		

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Potential New Thermal Energy Sources



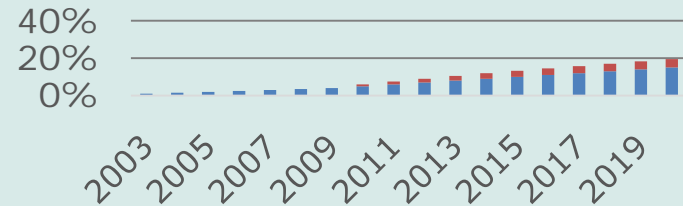
Potential New Thermal Energy Sources



Clean Electricity - Solar



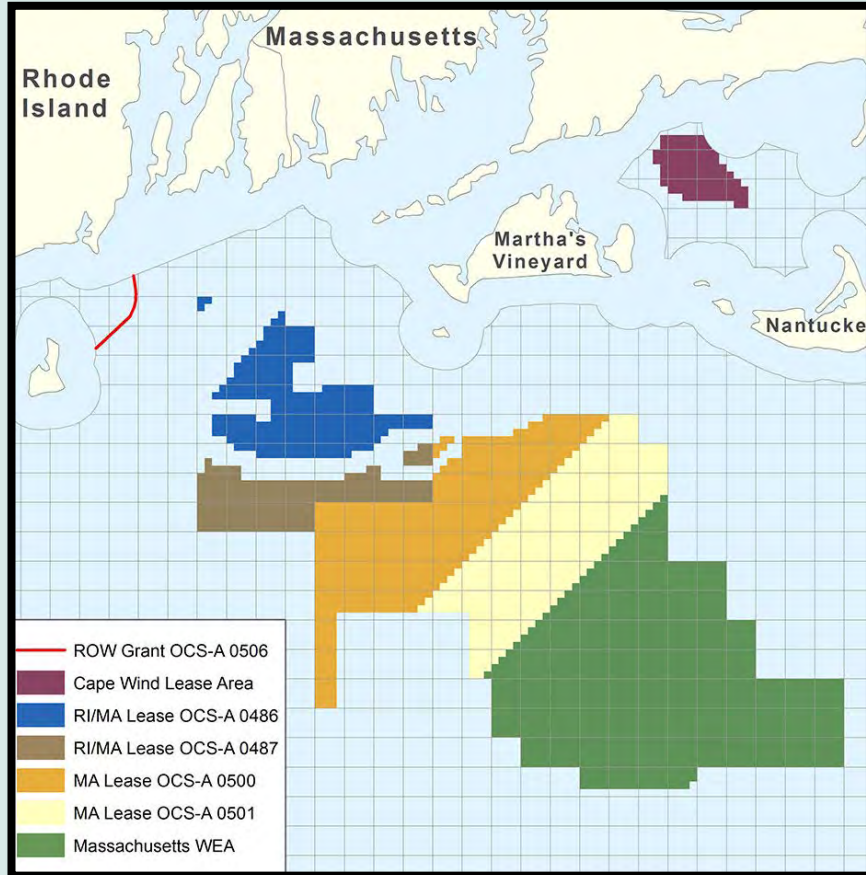
MA Energy Portfolio Requirements



■ RPS Classes I and II

Source: MA DOER

Clean Electricity - Wind









Source: Bureau of Ocean Energy Management

Land Use Planning Implications



Central Square District FAR = 2.20

Benchmark neighborhoods	Estimated average FAR
Central Square, Cambridge	2.20 ¹
North Point, Cambridge	2.66 ²
Assembly Row, Somerville	2.90 ³

-  Retail (Mixed-use)
-  Commercial
-  Residential
-  New Bicycle/Pedestrian Connections
-  Bicycle Lanes
-  Open Space

Source: ¹ City of Cambridge 2015 Tax Assessor and Parcel Data; ² Request for Special Permit Amendments Final Development Proposal NorthPoint (PB #179); ³ <http://bostinno.streetwise.co/2014/11/21/what-is-assembly-row-somerville/>

Measures of Success

- Will match energy demand profile/consumption in 2050
- Maximizes locally sourced energy production
- Business case can be made
- Sustainable and equitable
- Study to be completed by fall 2017